

CLAIMS

- [1] A bone-conduction device characterized by comprising: a yoke, which carries a voice coil and a magnet; and, a diaphragm disposed on said yoke through a narrow gap formed therebetween; wherein said diaphragm is provided with a center opening in which a plate yoke is disposed, and said plate yoke is provided with a diaphragm abutting portion which abuts against said diaphragm, wherein said diaphragm abutting portion has its outer end edge laser-welded to said diaphragm.
- [2] The bone-conduction device as set forth in claim 1, wherein said diaphragm has its outer end edge laser-welded to a diaphragm fixing portion of said yoke.
- [3] A bone-conduction device characterized by comprising: a yoke, which carries a voice coil and a magnet; and, a diaphragm disposed on said yoke through a narrow gap formed therebetween; wherein said diaphragm has its opposite ends bent to form bent portions, wherein said bent portion is fixedly mounted on an outer side surface of a diaphragm fixing wall of said yoke.
- [4] The bone-conduction device as set forth in claim 3, wherein said bent portion of said diaphragm is laser-welded to said outer side surface of said diaphragm fixing wall.
- [5] In a method of manufacturing a bone-conduction device comprising: a yoke, which carries a voice coil and a magnet; and, a diaphragm disposed on said yoke through a narrow gap formed therebetween, the improvement which comprises the step of laser-welding an outer end edge of a diaphragm abutting portion of a plate yoke to said diaphragm, wherein said diaphragm is provided with a center opening, and said plate yoke is disposed in said center opening of said diaphragm.

- [6] The method of manufacturing the bone-conduction device as set forth in claim 5, wherein said diaphragm has its outer end edge laser-welded to said diaphragm fixing portion.
- [7] In a method of manufacturing a bone-conduction device comprising: a yoke, which carries a voice coil and a magnet; and, a diaphragm disposed on said yoke through a narrow gap formed therebetween, the improvement which comprises the steps of: bending opposite ends of said diaphragm to form bent portions; and, fixing said bent portion to an outer side surface of a diaphragm fixing wall of said yoke.
- [8] The method of manufacturing a bone-conduction device as set forth in claim 7, wherein said bent portion of said diaphragm is laser-welded to said outer side surface of said diaphragm fixing wall.
- [9] The method of manufacturing a bone-conduction device as set forth in claim 7 or 8, wherein: prior to fixing said bent portion of said diaphragm, a spacer is sandwiched between said diaphragm and said yoke, wherein said spacer has a thickness equal to that of said gap and is pulled out of said gap after completing of a fixing operation of said bent portion of said diaphragm to said outer side surface of said diaphragm fixing wall.